

**WHAT IS CLAIMED IS:**

1. A polypeptide comprising polypeptide p177, p88, p64, p55 or p46 from *Neisseria gonorrhoeae*.
2. The polypeptide of claim 1, wherein the polypeptide is p177.
3. The polypeptide of claim 1, wherein the polypeptide is p88.
4. The polypeptide of claim 1, wherein the polypeptide is p64.
5. The polypeptide of claim 1, wherein the polypeptide is p55.
6. The polypeptide of claim 1, wherein the polypeptide is p46.
7. The polypeptide of claim 1, wherein protein has an amino acid sequence that corresponds essentially to SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, or SEQ ID NO:5.
8. A polynucleotide comprising a nucleic acid sequence encoding polypeptide p177, p88, p64, p55 or p46 from *Neisseria gonorrhoeae*.
9. The polynucleotide of claim 8, wherein the polypeptide is p177.
10. The polynucleotide of claim 8, wherein the polypeptide is p88.
11. The polynucleotide of claim 8, wherein the polypeptide is p64.
12. The polynucleotide of claim 8, wherein the polypeptide is p55.

13. The polynucleotide of claim 8, wherein the polypeptide is p46.
14. The polynucleotide of claim 8, wherein the polynucleotide has a nucleic acid sequence that corresponds essentially to SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, or SEQ ID NO:10.
15. A vaccine comprising an immunogenic amount of polypeptide p177, p88, p64, p55 or p46 from *Neisseria gonorrhoeae*, which amount is effective to immunize a susceptible female patient against gonorrhea, in combination with a physiologically-acceptable, non-toxic vehicle.
16. The vaccine of claim 15, wherein the polypeptide is p177.
17. The vaccine of claim 15, wherein the polypeptide is p88.
18. The vaccine of claim 15, wherein the polypeptide is p64.
19. The vaccine of claim 15, wherein the polypeptide is p55.
20. The vaccine of claim 15, wherein the polypeptide is p46.
21. The vaccine of claim 15, wherein the polypeptide is expressed from an isolated nucleic sequence encoding the polypeptide.
22. The vaccine of claim 21, wherein the nucleic acid sequence corresponds essentially to SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, or SEQ ID NO:10.

23. The vaccine of claim 15, which further comprises an effective amount of an immunological adjuvant.
24. The vaccine of claim 15, wherein the polypeptide is conjugated or linked to a second peptide.
25. The vaccine of claim 15, wherein the polypeptide is conjugated or linked to a polysaccharide.
26. A method of protecting a female patient against *Neisseria gonorrhoeae* colonization or infection comprising administering to the patient an effective amount of a vaccine comprising an immunogenic amount of polypeptide p177, p88, p64, p55 or p46 from *Neisseria gonorrhoeae*, which amount is effective to immunize a susceptible female patient against gonorrhea, in combination with a physiologically-acceptable, non-toxic vehicle.
27. The method of claim 26, wherein the polypeptide is p177.
28. The method of claim 26, wherein the polypeptide is p88.
29. The method of claim 26, wherein the polypeptide is p64.
30. The method of claim 26, wherein the polypeptide is p55.
31. The method of claim 26, wherein the polypeptide is p46.
32. The method of claim 26, wherein the polypeptide is expressed from an isolated nucleic sequence encoding the polypeptide.

33. The method of claim 32, wherein the nucleic acid sequence corresponds essentially to SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, or SEQ ID NO:10.
34. The method of claim 26, which further comprises an effective amount of an immunological adjuvant.
35. The method of claim 26, wherein the polypeptide is conjugated or linked to a second peptide.
36. The method of claim 26, wherein the polypeptide is conjugated or linked to a polysaccharide.
37. The method of claim 26, wherein the vaccine is administered orally, mucosally or by subcutaneous or intramuscular injection.
38. The method of claim 37, wherein the vaccine is administered mucosally via a nasal, gastrointestinal or genital site.
39. A method of preventing infection or colonization of *Neisseria gonorrhoeae* in a female patient by administering to the patient a compound that inhibits CR3.
40. The method of claim 39, wherein the compound is an antibody specific for CR3.
41. The method of claim 40, wherein the antibody is a monoclonal or polyclonal antibody.

42. The method of claim 41, wherein the antibody is a humanized antibody.
43. The method of claim 39, wherein the compound is a chemical or synthetic inhibitors.
44. The method of claim 43, wherein the chemical or synthetic inhibitor is a peptide, carbohydrate, glycoprotein, glycolipid, or divalent cation chelator.
45. The method of claim 44, wherein the peptide is a 15-mer peptide.
46. The method of claim 43, wherein the compound is a *Clostridium* neurotoxin.
47. The method of claim 46, wherein the compound is *Clostridium* C3 neurotoxin.
48. The method of claim 43, wherein the compound is Cytochalsin D, wortmannin, an anion channel blocker, a divalent cation chelator (such as EDTA or EGTA), an inhibitor of a serine or threonine protease, or LY294002.
49. The method of claim 48, wherein the divalent cation chelator is EDTA or EGTA.
50. An inhibitor comprising a recombinant murine I-domain from an Alpha-subunit of a complement receptor type 3 encoded by SEQ ID NO:11.
51. A nucleic acid encoding a recombinant murine I-domain from an Alpha-subunit of a complement receptor type 3 encoded by SEQ ID NO:11.

52. The nucleic acid of claim 51 encoded by SEQ ID NO:12.
53. A composition comprising the inhibitor of claim 50 and a pharmaceutically acceptable carrier.
54. A method of inhibiting invasion of *Neisseria gonorrhoeae* into a host cell in a patient comprising administering to the patient a recombinant murine I-domain from an Alpha-subunit of a complement receptor type 3.
55. A method of inhibiting invasion of *Neisseria gonorrhoeae* into a host cell in a patient comprising administering to the patient the composition of claim 53.
56. A vaccine comprising the polynucleotide of any one of claims 8-14 operably linked to a transcriptional promoter to generate an immunogenic amount of a polypeptide, which amount is effective to immunize a susceptible female patient against gonorrhea, in combination with a physiologically-acceptable, non-toxic vehicle.
57. A vaccine comprising a polynucleotide operably linked to a transcriptional promoter to generate an immunogenic amount of a polypeptide of claims 1-7, which amount is effective to immunize a susceptible female patient against gonorrhea, in combination with a physiologically-acceptable, non-toxic vehicle.
58. A method of protecting a female patient against *Neisseria gonorrhoeae* colonization or infection comprising administering to the patient an effective amount of the vaccine of claim 56 or 57.